



**U.S. Department of  
Health & Human Services**

# **Future Eligibility Determination Systems**

How standardization can help solve the challenges

Developed by a joint team from the  
Finance, Systems and Quality Group  
and the  
Family and Children's Health Programs Group

Center for Medicaid and State Operations  
Centers for Medicare & Medicaid Services  
U.S. Department of Health & Human Services

23 July 2002



# Executive Summary

- What is this all about?** The goal of this paper is to highlight some of the common challenges that every state faces with its current eligibility determination system and then to describe some of the characteristics of a future, enterprise-wide, eligibility determination system that addresses these challenges.
- Who should read this?** The target audience of this paper is state policy and system executives who are responsible for accurate and timely eligibility determinations and the system used to support this critical activity.
- What are the challenges?** States face several challenges with their current eligibility determination systems. These key challenges include:
- **shrinking budgets** to address human service needs and ongoing difficulty getting priority access to remaining resources;
  - **shifting paradigms** to larger, more integrated enterprise-wide human service systems;
  - increasing need to **share data** and generate aggregate reports;
  - continuing requirement to make system modifications to address **legal and regulatory changes**.
- Legacy eligibility determination systems may have been adequate for the needs of the past but they were not designed to meet the challenges that states now face. States need a solution for the future. This paper will help you design your future eligibility determination system.
- What are the solutions?** The solution is to develop and implement an enterprise-wide eligibility determination system that meets the needs of all stakeholders. The key to timely, effective, and cost-efficient implementation of a future enterprise-wide eligibility determination system is standardization. We have identified three system functions where the development and use of standards will help states develop their future eligibility determination systems:
- **User Interface** – the use of the internet’s existing open technical standards to develop a web-based interface.
  - **Data Elements** – the identification of standardized data elements for all Medicaid eligibility categories and related programs such as TANF, SCHIP, Food Stamps, Mental Health, and Public Health.
  - **Cascading Module** – the development of a standardized table-driven cascading eligibility determination module that can be incorporated into each state’s system.
- The inclusion of even one of these standards based efforts would have a significant impact on your system. We encourage you to consider the inclusion of all three in your future eligibility determination system. If states wish to collaborate on one or more of these solutions, CMS will work with the states to coordinate and facilitate the effort.

# Introduction

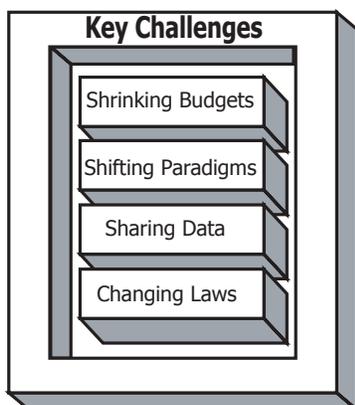
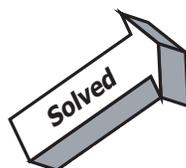
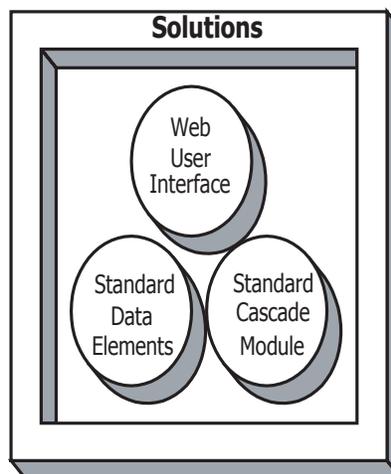
Stakeholders from Medicaid applicants and beneficiaries to state human service managers depend on a state's eligibility determination system for accurate and timely service. The current systems are not always up to the task. However, states face many issues and must make many far reaching decisions when they plan to develop the eligibility systems of the future which can meet the needs of their citizens.

The goal of this paper is to highlight some of the common challenges that every state faces with its current eligibility determination system and then to describe some of the characteristics of a future, enterprise-wide, eligibility determination system that addresses these challenges.

The target audience of this paper is state policy and system executives who are responsible for accurate and timely eligibility determinations and the system used to support this critical activity. If your state is about to develop a new eligibility determination system or even planning to make substantial improvements to its current system then you should read this paper.

This document can be read as a stand-alone white paper or in conjunction with the *8 Critical Building Blocks – A self-help guide to improving automated medicaid eligibility determinations*. Both of these documents will be placed on the CMS web site in the future at <http://cms.hhs.gov/medicaid/eligibility/meds.asp>.

You can also obtain copies of these documents by contacting the CMS representative listed on the last page of this white paper.



# What are the challenges?

## Key Challenges

The key challenges include:

- shrinking budgets to address human service needs and ongoing difficulty getting priority access to remaining resources;
- shifting paradigms to larger, more integrated enterprise-wide human service systems;
- increasing need to share data and generate aggregate reports;
- continuing requirement to make system modifications to address legal and regulatory changes.

Legacy eligibility determination systems may have been adequate for the needs of the past but they were not designed to meet the challenges that states now face. States need a solution for the future. This paper will help you design your future eligibility determination system.

States want to improve their eligibility determination process. While trying to improve their eligibility determination process states face several challenges. These challenges are often ones that their current eligibility determination systems are not designed to meet. While their current systems may have been adequate in the past, states are finding that these legacy systems cannot easily adapt to meet the new challenges.

However, states are finding that addressing these challenges are key to their goal of provide accurate and timely service to their applicants and beneficiaries while minimizing the costs associated with providing these services. These key challenges include:

- Shrinking budgets to address human service needs.

With state budgets under pressure and the ever-present demand to do more with limited resources, a state's eligibility determination system must be affordable to meet any increases in demand or restrictions in resources. Even when there are some resources for human service systems, the eligibility determination system is often not the state's first priority and thus has ongoing difficulty getting priority access to resources.

- Shifting paradigms away from “stovepipe” programs to larger, more integrated enterprise-wide human service systems.

Human service systems used to be stand-alone transaction processing silos of isolated data. The paradigm has shifted. Each application is now part of a interconnected web of human service systems. Each system is now part of a larger, more integrated enterprise-wide human service system. As part of a larger network of related systems, each stakeholder of your state's eligibility determination system needs different types of access to not just eligibility information but also data from related systems. The means by which a stakeholder receives his/her information has also changed. While a caseworker may want a quick and easy means of using the internet to make an eligibility determination; a beneficiary may want to use the phone to check his/her eligibility status; and a state executive may need to access the most recent reports.

## Future Eligibility Determination Systems

### How standardization can help solve the challenges

- Increasing need to share data and generate aggregate reports.

Like most automated systems, a state's eligibility determination system collects, stores, and processes data elements. These data elements may be used not only by Medicaid but also by TANF and Food Stamps. The data elements are also transmitted to related automated systems such as the Medicaid Management Information System (MMIS).

There is also an ever growing need for more accurate and timely aggregate reports. While most aggregate reports are still focused on individual programs there is also a growing interest in determining how multiple programs meet the needs of many of the same beneficiaries. This need for reports that correlates data across multiple programs such as Medicaid and Food Stamps will increase as budgets get tighter and the desire to do more with less becomes more acute.

- Continuing requirement to make system modifications to address legal and regulatory changes.

Welfare reform had a significant impact on eligibility determination systems. Since then, Medicaid guidelines have continued to change and evolve. We can expect the pace of change to increase in the future with the coming TANF reauthorization.

Each change in a law or regulation often means multiple changes in a system's software. The changes to legacy systems are often costly and time consuming. However, changes in laws and regulations will continue and with the coming TANF reauthorization will may even become more frequent. States need an eligibility determination system that can easily and cost-effectively be modified to address legal and regulatory changes.

Legacy eligibility determination systems may have been adequate for the needs of the past but they were not designed to meet the challenges that states now face. Adapting these systems to meet the new challenges are costly and most often futile efforts. These legacy systems do not benefit from the rapid advances in computer technology and system design techniques. States need a solution for the future. This paper will help you design your future eligibility determination system.

The next pages provides three solutions that help you address these key challenges you face with your current eligibility determination system. CMS believes these solutions should be part of your state's future eligibility determination system and will work with you to coordinate and facilitate the effort.

# What are the solutions?

## Solutions

The development and use of standards in the following three system functions:

- **User Interface**  
The use of the internet's existing web-based interface.
- **Data Elements**  
The identification of standardized data elements
- **Cascading Module**  
The development of a standardized table-driven cascading eligibility determination module

The solution is to develop and implement an enterprise-wide eligibility determination system that meets the needs of all stakeholders while addressing the challenges you face including shrinking budgets, shifting paradigms, sharing data, and changing laws. Our approach is to achieve budget savings from both a programmatic and administrative perspective through more accurate determinations as well as an improved technical design for the future eligibility determination system.

The key to timely, effective, and cost-efficient implementation of an enterprise-wide eligibility determination system is standardization. Standardization will help bring efficiencies of scale to each state's eligibility determination system and will lower the long-term development and maintenance costs for all states.

We have identified three system functions where the development and use of standards will help states develop their future eligibility determination systems:

- **User Interface** – the use of the internet's existing open technical standards to develop a web-based interface. Standardizing this system function will allow users to easily access the eligibility determination system not only through the internet but also via phones, faxes, and wireless devices that are under development.
- **Data Elements** – the identification of standardized data elements for all Medicaid eligibility categories and related programs such as TANF, SCHIP, Food Stamps, Mental Health, and Public Health. Standardizing this system function will lead the drive for program simplification and the easier sharing of information between related automated systems.
- **Cascading Module** – the development of a standardized table-driven cascading eligibility determination module that can be incorporated into each state's system. Standardizing this system function will allow all states to incorporate a state-of-the-art core module into their future eligibility

determination system.

The Challenges/Solutions Matrix identifies which system issue each solution helps you solve. The following pages describe each solution in more detail and reinforce CMS' commitment to work with your state to coordinate and facilitate the development of a future eligibility determination system.

Challenges Solutions Matrix		Challenges			
		Shrinking Budgets	Shifting Paradigms	Sharing Data	Changing Laws
Solutions	User Interface	Solved	Solved		
	Data Elements	Solved	Solved	Solved	Solved
	Cascading Module	Solved			Solved

## Future Eligibility Determination Systems

### How standardization can help solve the challenges

#### User Interface

The use of the internet's existing open technical standards to develop a web-based interface.

Standards for user interfaces helps solve the system issues:

- Shrinking Budgets
- Shifting Paradigms

If states wish to collaborate on the development of a common XML data tag standard, CMS will work with the states to coordinate and facilitate the effort.

Several states are moving to a web-based user interface that will allow stakeholders to access their eligibility determination systems via the internet or their state's intranet. We believe the use of these existing open technical standards are a key component of any e-government solution.

However, these open standards allow a state to do even more. Through standards such as the Extensible Markup Language (XML) states have cost-effective means of tailoring their eligibility determination system's user interfaces to meet the rapidly evolving needs of their system stakeholders. XML allows you to "tag" each data element so that systems "know" what the information means and thus can cost-effectively use the data in new ways. Through standards such as XML user interfaces are moving toward the paradigm of allowing controlled access to information from a host of devices while ensuring appropriate security.

Through these open standards, a state can provide the appropriate eligibility determination information not only from a computer via the internet but also through their phones, faxes, and through wireless devices that are now under development. This controlled but flexible access to your eligibility determination system will allow you to provide accurate and timely service to your stakeholders.

Each state can use the internet's existing open technical standards to develop flexible interfaces for their own future eligibility determination systems or they can collaborate with other states to develop common XML tags. We encourage you to take the collaborative route. While the XML technology has become standardized, the Federal government has not yet established a registry of government-unique XML tags.<sup>1</sup> As with most standards, the costs would be shared and the benefits of a standard would increase geometrically with the number of users.

If states wish to collaborate on the development of a common XML data tag standard, CMS will work with the states to coordinate and facilitate the effort.

<sup>1</sup> GAO-02-327, *Electronic Government: Challenges to Effective Adoption of the Extensible Markup Language*, U.S. General Accounting Office. 2002.

## Future Eligibility Determination Systems

### How standardization can help solve the challenges

#### Data Elements

The identification of standardized data elements for all Medicaid eligibility categories and related programs such as TANF, SCHIP, Food Stamps, Mental Health, and Public Health.

Standards for data elements helps solve the system issues:

- Shrinking Budgets
- Shifting Paradigms
- Sharing Data
- Changing Laws

If states wish to collaborate on the development of standard data elements across several states, CMS will work with the states to coordinate and facilitate the effort.

Most states have several programs that are closely related to Medicaid and other programs that serve a similar client population. Each program often has its unique definition of terms, such as a case, which often makes integrating the programs very challenging. A more standardized case using standard data elements would allow a state to develop more coherent eligibility policies and thus a more reliable eligibility determination system that effectively and efficiently serve the needs of its stakeholders.

While the previous solution of using open internet standards to develop the user interface does not require standardized data elements, the development of a standardized case would support the development of a standards based user interface.

A secondary, but still important, benefit of using standard data elements in your future eligibility determination system is its positive impact on local, state, and Federal reporting. By using standard data elements for all your eligibility programs you will find it easier to develop reports for all system stakeholders.

We strongly recommend that any effort to develop standard terms using standard data elements start by building on the progress from the Health Insurance Portability and Accountability Act (HIPAA) of 1996, Administrative Simplification Transactions and Code Sets Final Rule as the starting point for this effort.<sup>2</sup> This HIPAA effort is already well on the way to developing a set of standardized data elements. We recommend that you incorporate eligibility program specific data elements into the data set that is being developed by HIPAA. By using the efforts of this existing process you will be able to not only reduce your state's development costs but also benefit from the work already done by this national effort.

You also have the option of developing eligibility program specific data elements for your specific state or you can collaborate with other states. We encourage you to take the collaborative route. As with most standards, the costs would be shared and the benefits of a standard would increase geometrically with the number of users.

If states wish to collaborate on the development of standard data elements across several states, CMS will work with the states to coordinate and facilitate the effort.

<sup>2</sup> For more information please go to: <http://aspe.os.dhhs.gov/admsimp/>

## Future Eligibility Determination Systems

### How standardization can help solve the challenges

#### Cascading Module

The development of a standardized table-driven cascading eligibility determination module that can be incorporated into each state's system.

Standards for the cascading module helps solve the system issues:

- Shrinking Budgets
- Changing Laws

If states wish to collaborate on the development of a common cascading eligibility determination module, CMS will work with the states to coordinate and facilitate the effort.

A cascade module must deal with the nesting of eligibility determination rules and complex eligibility criteria. Individual states have found this an expensive and problematic module to develop on their own. A state must have a standardized table-driven cascading eligibility determination module to develop an eligibility determination system that can easily adapt to changes in laws, regulations, and recognized service standards at minimal cost.

By putting the eligibility criteria into a database table rather than hard-coding it into the software, a state will be able to quickly and accurately implement changes at minimal cost. The table manages not only the eligibility criteria for Federally supported programs but also for any state-specific programs.

A state specific table-driven cascading eligibility determination module would allow the state to easily adapt to changing eligibility criteria. You can also collaborate with other states to develop a standardized cascading module. We encourage you to take the collaborative route. As with most standards, the costs would be shared and the benefits of a standard would increase geometrically with the number of users.

By collaborating on the development of a standardized cascading eligibility determination module states can benefit from efficiencies of scale. The cost of developing and maintaining the module would be borne by multiple states. The number and severity of any software defects would be much lower after it has been tested and implemented in multiple states.

If states wish to collaborate on the development of a common cascading eligibility determination module, CMS will work with the states to coordinate and facilitate the effort.

## Conclusion

### **CMS will work with you**

If states wish to collaborate on the development of a common XML data tags, standard data elements, and/or a common cascading eligibility determination module, CMS will work with the states to coordinate and facilitate the effort.

For more information on how CMS can help you with your future eligibility determination system, please contact:

Rick Friedman  
Director of State Systems  
(410) 786-4451 or  
rfriedman2@cms.hhs.gov

States want to improve their eligibility determination process so they can provide accurate and timely service to their applicants and beneficiaries while minimizing the costs associated with providing these services. While trying to meet these goals, states face several key challenges with their current eligibility determination systems. These key challenges include:

- **shrinking budgets** to address human service needs and ongoing difficulty getting priority access to remaining resources;
- **shifting paradigms** to larger, more integrated enterprise-wide human service systems;
- increasing need to **share data** and generate aggregate reports;
- continuing requirement to make system modifications to address **legal** and regulatory **changes**.

Legacy eligibility determination systems may have been adequate for the needs of the past but they were not designed to meet the challenges that states now face. States need a solution for the future. This paper will help you design your future eligibility determination system.

The solution is to develop and implement an enterprise-wide eligibility determination system that meets the needs of not just Medicaid but all stakeholders. The key to timely, effective, and cost-efficient implementation of a future enterprise-wide eligibility determination system is standardization.

We have identified three system functions where the development and use of standards will help states develop their future eligibility determination systems:

- **User Interface** – the use of the internet’s existing open technical standards such as XML to develop a web-based interface.
- **Data Elements** – the use of standardized data elements for all Medicaid eligibility categories and related programs.
- **Cascading Module** – the development of a standardized table-driven cascading eligibility determination module.

The inclusion of even one of these standards based efforts would have a significant positive impact on your system. We encourage you to consider the inclusion of all three in your future eligibility determination system. If states wish to collaborate on the development of a common XML data tags, standard data elements, and/or a common cascading eligibility determination module, CMS will work with the states to coordinate and facilitate the effort.